

ABSTRACT OF THE DISCLOSURE

The fundamental waves and 3rd harmonics waves of two local signals output from a 90° phase shifter are suppressed by use of low-pass filters. The local
5 signals in which the fundamental waves and 3rd harmonics waves are suppressed are respectively supplied to two multipliers and respectively multiplied by Ich and Qch base-band signals. The results of multiplication in the two multipliers are added
10 together in an adder to create a modulation signal.